



SIMATIC S7, ANALOG INPUT SM336 6 AI;  
 15 BIT;  
 FAILSAFE ANALOG INPUTS FOR SIMATIC SAFETY,  
 WITH HART SUPPORT,  
 UP TO CATEGORY 4 (EN954-1)/ SIL3 (IEC61508)/PLE  
 (ISO13849),  
 1 X 20 PIN,

<b>Supply voltage</b>	
Load voltage L+	
Rated value (DC)	24 V
Reverse polarity protection	Yes
<b>Input current</b>	
from backplane bus 5 V DC, max.	90 mA
from supply voltage L+, max.	150 mA ; Typical
<b>Power losses</b>	
Power loss, typ.	4.5 W
<b>Analog inputs</b>	
Number of analog inputs	6
permissible input current for current input (destruction limit), max.	40 mA
<b>Input ranges</b>	
Voltage	No
Current	Yes
<b>Input ranges (rated values), currents</b>	
0 to 20 mA	Yes
Input resistance (0 to 20 mA)	150 Ω ; typ. 150 ohms max. 175 ohms

4 to 20 mA	Yes
Input resistance (4 to 20 mA)	150 Ω ; typ. 150 ohms max. 175 ohms
<b>Cable length</b>	
Cable length, shielded, max.	1000 m
<b>Analog value creation</b>	
<b>Integrations and conversion time/resolution per channel</b>	
Resolution with overrange (bit including sign), max.	16 bit ; 15 bits + sign
Integration time, ms	20 at 50 Hz 16.7 at 60 Hz
Interference voltage suppression for interference frequency f1 in Hz	$f=n \times (f1+0.5\%)$
<b>Encoder</b>	
<b>Connection of signal encoders</b>	
for current measurement as 2-wire transducer	Yes
for current measurement as 4-wire transducer	Yes
<b>Errors/accuracies</b>	
<b>Operational limit in overall temperature range</b>	
Current, relative to input area, (+/-)	0.2 % ; 40 μA
<b>Basic error limit (operational limit at 25 °C)</b>	
Current, relative to input area, (+/-)	0.1 %
<b>Interrupts/diagnostics/status information</b>	
<b>Alarms</b>	
Diagnostic alarm	Yes
<b>Diagnostic messages</b>	
Diagnostic functions	Yes
Diagnostic information readable	Yes
<b>Diagnostics indication LED</b>	
Fail-safe operation	Yes
Group error SF (red)	Yes
Monitoring 24 V voltage supply ON (green)	No
<b>Galvanic isolation</b>	
<b>Galvanic isolation analog inputs</b>	
between the channels	Yes
between the channels and the backplane bus	Yes
between the channels and the power supply of the electronics	Yes
<b>Isolation</b>	
Isolation checked with	370V for 1 min
<b>Standards, approvals, certificates</b>	
Highest safety class achievable in safety mode	

acc. to DIN V 19250	old
acc. to EN 954	4
acc. to IEC 61508	SIL 3
<b>Connection method</b>	
required front connector	20-pin
<b>Dimensions</b>	
Width	40 mm
Height	125 mm
Depth	120 mm
<b>Weights</b>	
Weight, approx.	350 g
Status	Jun 3, 2014